

## ABSTRACT OF THE INVENTION

A polymeric structural support membrane composed of a polymer that is an initiator induced reaction product of a monomer, an initiator, and optionally a crosslinking agent; and a fire retardant is applied to the surfaces of an excavation to provide structural support. The polymer is a reaction product of a monomer that can be monofunctional, di-functional, tri-functional, tetra-functional and mixtures thereof. The membrane formed has a tensile strength and a thickness sufficient to provide support to the exposed surfaces in the excavation and can be applied by spraying, brushing, or rolling. In an alternative embodiment the membrane can be applied by pumping.